

IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF WISCONSIN

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WISCONSIN ALUMNI RESEARCH  
FOUNDATION,

Plaintiff,

v.

APPLE, INC.,

Defendant.

OPINION AND ORDER

14-cv-062-wmc

The purpose of this opinion and order is to memorialize in writing the reasons for the court's grant of partial judgment to Apple's non-infringement defense based on the claim of "a prediction threshold detector preventing data speculation for instructions having a prediction within a predetermined range." Normally, the court might have permitted the jury to reach this issue in the first instance, but the testimony of Apple's own expert, as well as its counsel's repeated failure to articulate a reasonable factual basis to support such a verdict, prompted the entry of partial judgment here.

BACKGROUND

WARF's somewhat generic MIL 14 sought to "exclude evidence and argument regarding infringement that is contrary to well-established law." (Dkt. #341.) Among three, only slightly more particular areas of concern expressed by WARF was the possibility that Apple might attempt to argue that the accused device does not infringe because it can operate in a non-infringing manner for periods of time. (*Id.* at 1.) When Apple responded by denying it would make any such argument, the court denied the motion as moot while allowing WARF to interpose an objection if Apple failed to abide by its commitment. (9/28/15 Op. & Order (dkt. #464) 33-35, 47.)

At trial, it became increasingly apparent that Apple was attempting to make just such an argument with respect to its assertion that its LSD Predictor did not infringe the Claim 1 limitation of “a prediction threshold detector preventing data speculation for instructions having a prediction within a predetermined range.”<sup>1</sup> Indeed, over objection by WARF and despite giving Apple’s counsel ample advance notice of the court’s concern that the accused LSD Predictor does in fact prevent data speculation based on a prediction within a predetermined range, unless an additional feature called an “armed bit” is set to prevent it from doing so (10/9/15 Trial Tr. at pp. 160-70), Dr. August subsequently testified as follows:

Q: Is there a range in the Apple products that you can know in advance where a load will be prevented from speculating?

A: No.

Q: Why is that?

A: Because of the dynamic nature of the armed bit.

THE COURT: I’m just trying to understand. If the armed bit is set at 1, it’s not involved in the decision-making. The counter is.

THE WITNESS: Well, the armed bit is checked to see if it is 1, in some sense to see if the counter has a value.

THE COURT: Exactly. So does the counter matter?

THE WITNESS: Yes. In that case, yes, the counter is part of the circuit, the armed bit, both conditions must hold.

THE COURT: All right. And at that point, there is this predetermined number that you’d look at to the counter.

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<sup>1</sup> Deeper still in WARF’s original MIL 14 were a number of specific examples of WARF’s concern, including one involving an opinion expressed by Dr. August with respect to this same claim limitation, albeit on a slightly different basis than is now the subject of this opinion and order. (Pl.’s Mot. (dkt. #341) 12-13.)

The counter would control a pre-determined number.

THE WITNESS: Right. At that point the counter would have to be between 1 and 7.

(*Id.* at 177-78.)

## OPINION

In numerous, further attempts both orally and in its brief in support of its non-infringement argument (dkt. #567), Apple has attempted to explain away the fact that the LSD Predictor *does* prevent speculation based on a pre-determined value unless the armed bit is set at 0. Essentially, as Dr. August acknowledged in his testimony, the notion is that the armed bit makes the predictor “dynamic” since the pre-determined range of the counter does not control unless it is set at 1. An accused product, however, still infringes even if it does so only part of the time. *See, e.g., Z4 Technologies, Inc. v. Microsoft Corp.*, 507 F.3d 1340, 1350 (Fed. Cir. 2007) (“As with the previous argument, infringement is not avoided merely because a noninfringing mode of operation is possible. The fact remains that Microsoft’s Product Activation process prevents the use of software installations beyond the grace period unless the associated Product Key is used to enable the grace period.”); *Hilgraeve Corp. v. Symantec Corp.*, 265 F.3d 1336, 1343 (Fed. Cir. 2001) (“[A]n accused device may be found to infringe if it is reasonably capable of satisfying the claim limitations, even though it may also be capable of non-infringing modes of operation.”).

While Apple repeatedly attempted to characterize the role of the armed bit as inhibiting the LSD from functioning based on a predetermined range, as WARF points out, the patent-in-suit contains a nearly identical feature (the jury ultimately found it

*exactly* the same) in Claim 5, which introduces “a flag value” qualifying when the “predetermined range” will control. Whether or not identical in function, in the same way that the “flag” in Claim 5 is an improvement or additional disclosure over the earlier claims of the ’752 patent, so too is the armed bit simply an additional feature of Apple’s LSD Predictor: the armed bit does not change the undisputed fact that the predetermined range of the counter, at least at times, prevents speculation. *See, e.g.*, *Vulcan Engineering Co., Inc. v. Fata Aluminium, Inc.*, 278 F.3d 1366, 1375 (Fed. Cir. 2002) (“It is irrelevant whether an element has capabilities in addition to that stated in the claim. When the claimed function is performed in the accused system, by the same or equivalent structure, infringement of that claim element is established.”).

## ORDER

IT IS ORDERED that WARP’s oral motion for judgment as a matter of law at the close of the evidence on Apple’s defense of non-infringement of the claim limitation of “a prediction threshold detector preventing data speculation for instructions having a prediction within a predetermined range” is GRANTED.

Entered this 16th day of October, 2015.

BY THE COURT:

/s/

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William M. Conley  
District Judge